

State of Louisiana's



Screening Plan

Childhood



Lead Poisoning Prevention

Program



Revised September 2009

Executive Summary

Lead poisoning is a preventable disease that affects 2.2% of US children between 6 months and 6 years of age. In Louisiana, 2008 data shows that 1.9% of children screened have initial blood lead levels that are equal to or greater than 10 ug/dl. In 2008, 21.6% of children aged 6 months to 6 years of age were screened, thus indicating that a majority of the children have not been reached.

The Louisiana Childhood Lead Poisoning Prevention Program (LACLPPP) has developed this screening plan to assist public and private health care providers across the state in screening children under 6 years (72 months) of age for lead poisoning. In an effort to address lead poisoning, LACLPPP is focusing its activities on increasing screening in Louisiana so as to identify high risk areas and children with lead poisoning.

Based on current screening information and the number of identified cases of lead poisoning, LACLPPP is recommending universal screening for lead in all parishes. Screening efforts will improve as data sharing efforts, data collection (complete zip code information, specific exposure sources) and geo-coding efforts improve. As of October 2008, LACLPPP has designated each parish as high risk and made universal screening mandatory statewide.

The program assumes a three pronged approach to expanding the scope of screening and improving the percentage of at risk children screened. The program will work with the state Medicaid program to ensure screening and follow-up of this at risk population, ensure screening of children receiving services through WIC at the public health units and work with private providers who serve affected children to assure appropriate management and follow-up.

The success of the screening plan and the program as a whole will be determined by LACLPPP's ability to reduce the number of children with elevated blood lead levels and to identify these children earlier and at lower blood levels, so that appropriate follow-up and intervention strategies may be provided to achieve the best possible outcome for the child and family.

Background

Why is lead poisoning a concern?

Childhood lead poisoning remains a major, preventable environmental health problem in the United States and in Louisiana. In 1991, the Centers for Disease Control and Prevention (CDC) produced the document, *Preventing Lead Poisoning in Young Children* and lowered the level of concern from 25 ug/dl to 10ug/dL

At low blood lead levels, lead poisoning can affect a child's ability to learn. At high levels, it can be extremely dangerous and can have devastating health consequences, including encephalopathy, seizures, coma and even death. Children living in older, deteriorated housing and children who are living in poverty are at high risk of lead exposure. Other factors that influence the risk of lead poisoning are the age of the child, race/ethnicity, nutritional status, parental occupations and hobbies, and proximity to certain industries and sites.

Who should be screened?

The 1991 Centers for Disease Control and Prevention (CDC) document, *Preventing Lead Poisoning in Young Children*, recommended universal screening of all children unless there was sufficient information to make a targeted screening recommendation. In 1997, the CDC produced *Screening Young Children for Lead Poisoning: Guidance for State and Local Public Health Officials* outlined CDC's updated screening and medical follow-up recommendations and encouraged targeted screening of high-risk children.

Children judged to be at high risk need to be assured of appropriate screening and follow-up, while other children living in communities where the risk of lead exposure has been demonstrated to be low may not need to be screened. The determination of who should be screened should be based on the factors of prevalence of childhood lead poisoning, age of housing, and the demographics of the community.

What do we know about childhood lead poisoning in Louisiana?

Screening:

In 2008, 21.6% of Louisiana's children between the ages of 6 months to 6 years were screened for lead poisoning showing an increase from 16.9% in 2006 and 19.6% in 2007. The percentage of children who were screened varied by parish, Appendix 1 has the number and percent of children age 6 months to 6 years who were screened for each parish. There are 7 parishes with greater than 30% screened, 6 parishes with 25 to 30% screened, 12 with 20 to 25% screened, 30 with 10 - 19% screened, and 9 with 5 to 10% screened. Even with the improved screening rates, efforts must be made to increase screening in most areas of the state.

Prevalence:

Since Louisiana established a Cooperative Agreement with the CDC Childhood Lead Poisoning Program in 1998, a population-based surveillance system including information on all lead tests done on children in the State has been established. Prior to that time, the only data that was available was for children screened through public health units. Implementation of the reporting rule in 2001 has resulted in population based data since that time. The Table 1 indicates the trends in screening and prevalence rates.

Table 1. Percentage (%) of Louisiana Children with elevated blood lead levels
1995 – 2008

Year	# screened	% > or = 10 µg/dl
1995*	27,259	20.9%
1996*	32,259	16.5%
1998*	23,525	13.8%
1999*	17,212	12.8%
2000*	17,026	11.8%
2000**	15,650	7.1%
2001*	10,957	13.1%
2001**	33,986	4.6%
2002*	7,946	14.6%
2002**	45,633	4.5%
2002***	53,579	5.9%
2003*	4,917	18.1%
2003**	58,198	4.1%
2003***	63,115	5.1%
2004*	2626	24.8%
2004**	67546	3.5%
2004***	70172	4.3%
2005***	57316	3.4%
2006***	57276	2.0%
2007***	66415	1.6%
2008***	73124	1.9%

* Data collected from Public Health Unit

**Data collected from Private Providers

***Public Health Unit and Private Provider data

Age of Housing:

Housing built before 1950 has the highest potential for risk of lead poisoning for children residing there. The existence of areas in which 27% or greater of the housing is pre-1950 is one factor indicating the need for universal screening. Only one parish is Louisiana, Orleans Parish, has a greater than 27% pre-1950 housing with 48.5% of its housing fitting into this category. Fifteen parishes (23%) have between 20 and 27% pre-1950 housing.

Screening Recommendations and Requirements

Parish specific screening recommendations

Starting out with the public health data sets from 1998 -2000, Orleans Parish had the largest number of children screened and the highest percentages of children with elevated lead levels. However, when we look at Orleans Parish, it is apparent that there are some areas in which few children have been screened. The recommendation has been for Universal screening to continue in Orleans Parish and also throughout the state.

Outside of Orleans Parish, we have seen a decline in the number of children screened in OPH health units with the shift of the patients to the private sector. Thus, information on screening in the private sector became essential for determining screening rates as well as implementing universal statewide screening.

The first step in developing screening recommendations has been to look at which areas have sufficient numbers of children screened and then at the % of children with BLL's of 10 and over.

The next table provides information on the parishes with the highest screening rates.

Parish	# of children 0-6 years	# of children screened	% of children screened	# of children BLL ≥10ug/dl	% with BLL ≥10ug/dl
St Bernard	658	311	47.3%	2	0.6%
Caldwell	751	343	45.7%	9	2.6%
Cameron	583	242	41.5%	6	2.6%
Orleans	16149	6214	38.5%	396	6.4%
Washington	2616	951	36.4%	20	2.1%
Franklin	1874	661	35.3%	3	0.5%
Catahoula	822	273	33.2%	4	1.5%
Winn	1667	392	29.7%	4	1%
Calcasieu	14634	3930	26.9%	26	0.7%
Webster	3135	826	26.3%	8	1.0%
Richland	1847	485	26.3%	11	2.3%

The other factor we looked at in determining which areas to target is the number of children affected. This next table contains information on parishes with large numbers of affected children.

Parish	# of children 0-6 years	# of children screened	% of children screened	# of children BLL \geq10ug/dl	% with BLL \geq10ug/dl
Caddo	19932	3265	16.4%	55	1.7%
E. Baton Rouge	32097	6561	20.4%	121	1.8%
Orleans	16149	6214	38.5%	396	6.4%
Jefferson	29918	6627	22.2%	1.4	1.6%
Ouachita	12469	2006	16.1%	100	5.0%
Rapides	10232	1530	15.0%	38	2.5%

Based upon previous year's high prevalence rates or high numbers of children affected, we have determined all parishes in Louisiana as high risk.

Screening requirements

Medicaid

Since 1989, federal law has required states to screen children enrolled in Medicaid for elevated blood lead levels as part of the prevention services provided through the Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) program. The EPDST program provides screening and entitles children to any federally allowable diagnostic and treatment service necessary to correct the condition found by the screening.

The Centers for Medicare and Medicaid Services (CMS) formerly known as the Health Care Financing Administration, updated its federal Medicaid regulations in 1998 regarding lead screening for Medicaid children. All Medicaid-enrolled children are required to have a blood lead test at 12 and 24 months of age. Children between 36-72 months must be tested if they have not previously been tested. *This requirement for a blood lead test is not an option and a risk assessment questionnaire is not a suitable substitute for the blood lead test.* There is no waiver to this Medicaid requirement for blood lead screening at this time.

In December 1999, the American Academy of Pediatrics (AAP) supported this policy, emphasizing the higher risk for elevated blood lead levels among children enrolled in Medicaid. Providers can always do a lead screen if they feel there is a reason to do so at another time. This policy is simpler for health care providers, since it drops the prior requirements for verbal risk assessments and different screening schedules for high and low-risk Medicaid children.

Medical follow-up does not begin until the blood lead level is greater than or equal to 10 ug/dL. Direct blood lead measurement is the assessment tool of choice. Capillary blood lead samples (finger stick) are adequate for the initial screening test, if precautions are taken to minimize the risk of contamination. Venous blood lead samples should be collected for diagnostic confirmation of all elevated blood lead test results. Children identified with elevated blood lead levels require evaluation and referral for appropriate follow-up services. When the private provider identifies these children, it is appropriate to refer them to the LACLPPP to ensure that the program is aware and able to offer guidance as necessary.

WIC

Recently released WIC Final Policy Memorandum 2001-1 states that, “To implement the provision in Public Law 106-387, WIC State agencies must require that upon enrollment of a child, the parent of caregiver must be asked if the child has had a blood lead screening test. If the child has not had a test, they must be referred to programs where they can obtain such a test.

WIC Federal Policy Memorandum 93-3A, “WIC’s role in Screening for Childhood Lead Poisoning,” dated March 23, 1993, encourages WIC State agencies to inquire during WIC nutritional screening if a client has had a blood lead test and to make the necessary referral to obtain one, when appropriate. Therefore, the legislative requirement does not represent a new or additional activity or cost for the WIC program.”

WIC funds cannot be used to conduct blood lead screening; however, LACLPPP will work with WIC to determine & reach at risk children identified through WIC.

Roles and Responsibilities for Childhood Lead Poisoning Prevention

The task of identifying and protecting children at risk for lead poisoning is a shared one. Public health professionals and private providers all have a role to play therefore communication and cooperation between these two groups of health professionals cannot be over emphasized. Private providers must provide participatory guidance to parents as well as conduct screenings and case management for children determined to be at risk or meeting other requirements. Public health professionals also perform these duties for affected children.

Comprehensive services are best provided by a team that includes an EPA certified risk assessor, nutritionist, social worker, health educator, and other staff as deemed appropriate.

Lead poisoning is one of many health related concerns of the Louisiana Office of Public Health and various arms of the Office of Public Health work together to eliminate lead poisoning in Louisiana.

Private providers conduct case management with assistance from LACLPPP. LACLPPP provides guidance on follow-up testing while the private providers are responsible for communicating with the child’s family or caregiver, scheduling follow-up visits and making appropriate referrals to environmental health sanitarians. Contracted Risk Assessors are responsible for conducting lead inspections to identify the source and advising the affected family on various remediation and abatement options. All private providers and contracted risk

assessors are responsible for communicating their findings to LACLPPP by using the appropriate reporting forms on pages 13 and 14.

Screening and Case Management Procedures

What does it mean to screen a child?

LACLPPP defines screening for lead poisoning as giving a child a blood lead test to determine if and how much lead is in a child's body. Screening should be done by blood lead measurement of either a venous or capillary blood specimen. For purposes of accuracy, a venous sample is preferable. However, as obtaining a capillary sample is sometimes a more practical option, LACLPPP accepts capillary samples as screening tests. All capillary blood lead results that are ≥ 15 ug/dl should be confirmed with a venous specimen. Please refer to page 15 to determine the timing of confirmatory venous tests.

Portable Lead Testing Machines

Use of the ESA hand-held lead analyzer is acceptable as a means of screening. However, all results that are ≥ 15 ug/dl should be confirmed with a venous specimen. Please refer to page 15 to determine the timing of confirmatory venous tests. Providers using this method of blood lead analysis must meet all Clinical Laboratory Improvements Amendments (CLIA) requirements. In addition, as the provider will function as a laboratory in this case, results must be reported to LACLPPP as specified in the program rule (LAC 48: V. 7007 and 7009). Please contact LACLPPP to discuss blood lead result reporting methods.

What are the Screening steps?

Risk assessment questionnaire: determining who to screen

All children shall be routinely screened at their screening visits beginning at six months of age. Screening shall be by use of the Lead Poisoning Risk Assessment Questionnaire on page 12. Children at six months of age or at their initial screening at any age with any positive answers on the questionnaire shall be considered to be at high-risk for lead exposure and blood lead testing will be done at that time. Once a child has been determined to be high-risk, they shall be screened by blood lead testing at least yearly till age 6 years.

Children with no positive answers on the questionnaire shall be considered at low-risk for lead exposure but must have blood lead testing at one and two years of age or at the first visit if older than two years at that visit. Low-risk children shall be screened with the Risk Assessment Questionnaire at all child health screening visits. Blood lead testing should be done if their risk status changes to high-risk based upon the questionnaire.

Figure 1: Lead Poisoning Risk Assessment Questionnaire

1. Does your child live in or regularly visit a house that was built before 1950? This question could apply to a facility such as a home day-care center or the home of a babysitter or relative?
2. Does your child live in or regularly visit a house built before 1978 with recent or ongoing renovations or remodeling (within the last 6 months)?
3. Does your child have a sibling a playmate that has or did have lead poisoning?

At the time of each screening, the parent or guardian shall be advised of the need for continued screening and shall be encouraged to bring the child for regular check-ups. The child's record shall be checked each time he or she returns to the health unit for Child Health clinics, WIC services, and all other preventive health services. Screening shall be performed during these visits if indicated. It is important to realize that one negative screening test in a child does not rule out subsequent problems. Children shall, therefore, be screened

through risk assessment and appropriate blood lead testing at the time of routine child health visits to the age of six.

This questionnaire shall be given to each parent or caretaker at the six month visit or at the first child health screening visit after that age. The parent should be instructed to answer the questions which are intended to determine if the infant or child is at risk for lead poisoning. Any questions the parent has should be answered and any assistance given to complete the questionnaire. The Risk Assessment Questionnaire should be signed and dated by the parent or caretaker. The Risk Assessment Questionnaire should be reviewed by the nurse. Details should be obtained on any positive answers. A child with any positive answers shall be considered at high-risk for lead poisoning and blood lead testing done at that visit and subsequently according to the follow-up schedule. A child with no positive answers shall be considered at low-risk for lead poisoning. These children should have blood lead tests done at one and two years of age. Their Risk Assessment Questionnaire should be updated at each visit utilizing the Update section of the Risk Assessment Questionnaire.

Additional screening indicators

In addition to determining a child's risk of exposure through the risk assessment questionnaire, LACLPPP recommends considering the following when making screening decisions.

Increased likelihood of exposure

The risk of exposure to lead may increase if the family moves into older housing or if the child's current residence has recently been repaired or renovated.

Pica and ingestion of non-food items

Some children exhibit increased mouthing behavior, thus increasing their risk of exposure. Foreign items, such as lead shots, fishing sinkers and curtain weights that have been swallowed or are occasionally placed in the mouth are often linked with lead exposure. Furthermore,

parental/guardian hobbies might increase access to lead containing materials. Making stained glass, hunting, fishing, furniture refinishing and pottery making are a few hobbies that might involve the use of lead containing materials.

Parental request

Some parents might request that their child be tested for lead if they live in older housing, are currently renovating or remodeling, are exposed to lead sources at work or through hobbies or know that their child's sibling, friend or neighbor's child has elevated blood lead levels.

Symptomatic children

Lead poisoning is often asymptomatic, however, if a child has developmental delay, unexplained seizures, abdominal pain, neurological symptoms or other symptoms related to lead poisoning, he/she should be receive a venous blood lead test as part of their diagnosis.

Uncommon sources

Certain folk or foreign medicines and cosmetics contain lead. Please refer to the list of lead sources to identify exposure sources associated with people from Latin America, China, Burma, India, Pakistan and the Middle East.

Other unusual sources of lead are lead glazed pottery, mini-blinds, ceramics used for cooking, storing and serving food, molten lead used in ammunition and fishing weights and lead particles captured on the clothes of people who use indoor firing ranges.

Reporting procedures

LACLPPP passed a program rule (LAC 48: V. 7007 and 7009) in January 2000 and amended in October 2008, specifying that all laboratories will report all blood lead levels, regardless of the result and that all providers will report blood lead levels at are ≥ 15 ug/dl. The program rule can be found on pages 16 and 17.

Laboratories are supposed to contact LACLPPP's surveillance program to determine how to report. Private providers are supposed to report results that are ≥ 15 ug/dl by using the lead case reporting form on page 13.

Case management guidelines

LACLPPP uses the following recommendations from the CDC:

Case Management of children with elevated blood lead levels involves coordinating, providing, and overseeing the services required to reduce BLL's below the level of concern (10ug/dl). It is based on the efforts of an organized team that includes the child's caregivers and involves a

cooperative approach to solving any problems that may arise during efforts to decrease the child's elevated blood lead and eliminate lead hazards in the child's environment.

Case Management provides individualized guidance to parents/guardians of children with elevated blood lead levels and consultation to health care providers on appropriate follow-up of elevated blood lead levels in children until lead level is <10 ug/dl. Families are provided with lead education materials in order to increase their awareness about lead poisoning. This educates families about key sources of lead exposure and how to reduce them as well as providing them education on a diet rich in calcium and iron. Case Management refers children 6-72 months of age with an elevated blood lead level of 15 ug/dl – 19 ug/dl after 2 venous tests or ≥ 20 ug/dl on one venous test to the Environmental Coordinator for an environmental inspection of the child's home to identify the source of lead.

Health Care providers are required to submit the Lead Case Reporting form on all blood lead levels ≥ 15 ug/dl and the Request for Environmental Inspection form with an elevated blood lead level of 15 ug/dl – 19 ug/dl after 2 venous tests or ≥ 20 ug/dl on one venous test (see attach forms).

Case Management follows the CDC's Summary Chart Lead Poisoning Management (see page 15) and provides this chart to health care providers. This chart assists case management as well as health care providers in determining when to repeat a blood lead test, when to make a referral, and when an environmental inspection is needed.

Contact Information

LACLPPP

Address:

3101 W. Napoleon Avenue, Suite 141
Metairie, LA 70001

Telephone: (504) 219-4413

Fax: (504) 219-4452

Website: www.lead.dhh.louisiana.gov

Forms

Lead Poisoning Risk Assessment Questionnaire
Private Provider Case Reporting Form
Environmental Inspection Reporting Form

LEAD POISONING RISK ASSESSMENT

PLEASE ANSWER EACH QUESTION REGARDING _____
(CHILD'S NAME)

1. Does your child live in or spend at least ten hours in any of the following built before 1950 with peeling or chipping paint:

<input type="checkbox"/> a house	Yes	No	Not Sure
<input type="checkbox"/> day care center	Yes	No	Not Sure
<input type="checkbox"/> preschool or school	Yes	No	Not Sure
<input type="checkbox"/> home of a babysitter or relative	Yes	No	Not Sure

2. Does your child live in or regularly visit a house built before 1950 with recent, ongoing, or planned renovation or remodeling?

	Yes	No	Not Sure
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3. Does your child have one of the following who is being followed or treated for lead poisoning?

<input type="checkbox"/> a brother or sister	Yes	No	Not Sure
<input type="checkbox"/> housemate	Yes	No	Not Sure
<input type="checkbox"/> or playmate	Yes	No	Not Sure

4. Does your child live with or come in some contact with an adult whose job or pastime involves exposure to lead such as:

<input type="checkbox"/> construction	Yes	No	Not Sure
<input type="checkbox"/> welding	Yes	No	Not Sure
<input type="checkbox"/> pottery	Yes	No	Not Sure
<input type="checkbox"/> ceramics	Yes	No	Not Sure
<input type="checkbox"/> house painting	Yes	No	Not Sure
<input type="checkbox"/> or other such trades?	Yes	No	Not Sure

5. Does your child live near an active:

<input type="checkbox"/> lead smelter,	Yes	No	Not Sure
<input type="checkbox"/> battery recycling plant,	Yes	No	Not Sure
<input type="checkbox"/> or other industry likely to release lead?	Yes	No	Not Sure

6. Do you give your child any home remedies that may contain lead?

	Yes	No	Not Sure
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7. Does your child live near a major road or highway where soil and dirt may be contaminated with lead?

	Yes	No	Not Sure
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8. Does your home's plumbing have lead pipes or copper pipes with lead solder joints?

	Yes	No	Not Sure
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INITIAL SCREENING
PARENT/GUARDIAN

(PRINT NAME) _____	(SIGNATURE) _____	(DATE) _____
RESULT	SCREENER	DATE
_____	_____	_____
_____	_____	_____



STATE OF LOUISIANA
DEPARTMENT OF HEALTH AND HOSPITALS



Louisiana Childhood Lead Poisoning Prevention Program (LACLPPP)
Lead Case Reporting Form

Copies of the following form can be used to report lead results. As stated in the Louisiana Childhood Lead Poisoning Prevention Program Rule (LAC 48:V.7001-7007), please provide all of the following information. Please print all information, use separate forms for each patient and fax the completed form to (504) 219-4452.

PATIENT INFORMATION

1. LAST NAME: _____ 2. FIRST: _____ 3. MI: _____
4. SSN: _____ 5. MEDICAID NUMBER (if any): _____
6. DATE OF BIRTH: _____ 7. SEX: FEMALE MALE
8. RACE: Black White Other _____ 9. NATIONAL ORIGIN: _____

PARENT'S OR GUARDIAN'S INFORMATION

10. PARENT'S OR GUARDIAN'S FULL NAME: _____
11. MOTHER'S FULL NAME: _____ 12. PHONE NUMBER: _____
13. ADDRESS: _____
14. CITY: _____ 15. STATE: _____ 16. ZIP: _____
17. PARISH/COUNTY: _____

BLOOD LEAD INFORMATION

18. BLOOD LEAD RESULT: _____ 19. DATE COLLECTED: _____
20. Please circle one: CAPILLARY VENOUS
21. Please circle one: FIRST ANNUAL REPEAT

REPORTING PROVIDER OR LABORATORY INFORMATION

22. PROVIDER/LAB NAME: _____
23. CONTACT PERSON: _____
24. ADDRESS: _____
25. CITY: _____ 26. STATE: _____ 27. ZIP: _____
28. PARISH/COUNTY: _____
29. TELEPHONE: _____ 30. FAX: _____

OFFICE OF PUBLIC HEALTH • LOUISIANA CHILDHOOD LEAD POISONING PREVENTION PROGRAM
3101 West Napoleon Avenue • Suite 141 • METAIRIE, LOUISIANA 70001
PHONE#: 504/219-4413 • FAX#: 504/219-4452
"AN EQUAL OPPORTUNITY EMPLOYER"



STATE OF LOUISIANA
DEPARTMENT OF HEALTH AND HOSPITALS
Office of Public Health - Sanitarian Services



REQUEST FOR ENVIRONMENTAL LEAD INVESTIGATION

Please fill out Parts I, II, & III completely. Complete Part IV if residence is rental. The information is necessary for a proper investigation to be arranged, to complete documents needed for Medicaid reimbursement, and for a thorough inspection to help identify the source of lead poisoning. FAX this form to information at bottom of page.

I. REQUESTER INFORMATION

Date of Request: ___/___/___ Requested by: _____ Telephone: _____
Provider name: _____
Fax: _____
Address: _____ City: _____ State: ___ Zip: _____
Parish: _____

II. PATIENT INFORMATION

Name: _____ Birth Date: ___/___/___ Sex: ___ Race: _____
Social Security No.: _____ - _____ - _____
For Medicaid referrals: _____ For OPH referrals: _____
Medicaid No. _____

Home Address _____
(Street and/or Apt., P.O. Box not acceptable)
Rent ___ Own ___
City _____ ZIP _____ Phone _____
Parent/Guardian Name _____ Bus. Phone _____

Other residence where patient spends time:
Occupant Name: _____ Phone: _____
Address _____ City _____ State _____ ZIP _____
Owner/Agent Name: _____ Phone: _____
Address _____ City _____ State _____ ZIP _____

III. PATIENT'S LEAD TEST HISTORY

- Provide initial test date and result. Circle type, either venous (V) or capillary (C):
Initial Test: Date ___/___/___ Result ___ ug/dl Type: C or V
- Provide most recent follow-up test dates and results. Circle type, either venous (V) or capillary (C):
Date ___/___/___ Result ___ ug/dl Type: C or V Date ___/___/___ Result ___ ug/dl Type: C or V
Date ___/___/___ Result ___ ug/dl Type: C or V Date ___/___/___ Result ___ ug/dl Type: C or V
- Attach copies of laboratory reports for all results listed.

IV. RENTAL RESIDENCE INFORMATION

Owner/Agent Name: _____ Phone: _____
Address _____ City _____ State _____ ZIP _____

Other comments which may be helpful to the person performing lead investigation

OFFICE OF PUBLIC HEALTH • LOUISIANA CHILDHOOD LEAD POISONING PREVENTION PROGRAM
3101 West Napoleon Avenue • Suite 141 • METAIRIE, LOUISIANA 70001
PHONE#: 504/219-4413 • FAX#: 504/219-4452
"AN EQUAL OPPORTUNITY EMPLOYER"

SUMMARY CHART LEAD POISONING MANAGEMENT

	CLASS I	CLASS II A	CLASS II B	CLASS III	CLASS IV	CLASS V
I. BLOOD LEAD LEVEL (µg/dl)	≤10	10-14	15-19	20-44	45-69	≥69
II. DIAGNOSTIC EVALUATION						
A. Repeat blood lead test to confirm initial test results	No	Yes - in 3 months (capillary)	Yes - within 30 days (venous)	Yes - within 5 days (venous)	Yes - within 3 days (venous)	Yes - immediately (venous)
B. Detailed history supplement	No	No	Yes	Yes	Yes	Yes
C. Hemoglobin determination	No	No	Yes	Yes	Yes	Yes
D. Diagnostic referral to Health Unit clinician or other medical provider	No	No	No - after first test. Yes - after the second elevated test in 3 months	Yes - immediately if symptoms present. Otherwise, within 10 days after confirmation	Yes - immediately if symptoms present. Otherwise, within 48 hours after confirmation	Yes - immediately if symptoms present. Otherwise, within 48 hours after confirmation
III. ENVIRONMENTAL EVALUATION						
A. Sanitarian Notification	No	No	No - After first test. Yes - after 2 nd elevated test in 3 months	Yes - immediately if symptoms present. Otherwise, within 10 days after confirmation	Yes - immediately if symptoms present. Otherwise, within 48 hours after confirmation	Yes - immediately if symptoms present. Otherwise, within 48 hours after confirmation
B. Inspection and form completion	No	No	Yes - within 15 days of second elevated test.	Yes - within 2 days if symptoms present. Otherwise, within 10 days after confirmation.	Yes - within 2 days if symptoms present. Otherwise, within 5 days after confirmation.	Yes - within 2 days if symptoms present. Otherwise, within 2 days after confirmation.
IV. FOLLOW UP						
A. Repeat blood lead and hemoglobin	Yes - if high risk repeat in 6 months (capillary) If low-risk repeat in 12 months (capillary)	Yes - in 3 months (capillary)	Yes - 3 months (venous)	Yes - monthly until environmental hazard abated. Then quarterly or per physician's orders	Yes - at least monthly until environmental hazard abated. Then quarterly or per physician's orders.	Yes - at 1 to 2 week intervals until environmental hazard abated. Then at intervals ordered by Physician.
B. Return Appointment	Based on risk status	3 months	3 months	Physician's discretion	Physician's discretion	Physician's discretion
C. Iron supplement	Based on EP if known	By diet and oral iron based on EP	Yes - maintenance oral unless EP elevated to >75	Yes	Yes	Yes
D. Nutrition Services (including WIC)	No - unless EP elevated	Yes	Yes	Yes	Yes	Yes
V. SCREENING OF PLAYMATES AND CHILDREN UNDER 6 YEARS IN HOUSEHOLD	No	No	Yes - as soon as possible after second elevated test	Yes - as soon as possible	Yes - immediately	Yes - immediately
VI. SANITARIAN'S HAZARD ABATEMENT PLANNING WITH FAMILY AND LANDLORD	No	No	Yes - after second elevated test	Yes	Yes	Yes
VII. OTHER SERVICES	No	Education on prevention of lead poisoning	Refer to Medical Social Services if indicated	Refer to Medical Social Services	Refer for psychological evaluation if indicated and refer to Medical Social Services	Refer for psychological evaluation if indicated and refer to Medical Social Services

RULE

Department of Health and Hospitals Office of Public Health

Lead Poisoning Prevention Program (LAC 48:V.7005-7009)

Under the authority of R.S. 40:5 and 40:1299.21, 22, 23 and in accordance with the Administrative Procedure Act, R.S. 49:950 et seq., the Department of Health and Hospitals, Office of Public Health has amended LAC 48:V.7005, 7007 and 7009.

The Rule extends the designation of the area high risk for childhood lead poisoning from Morehouse, Orleans, Tensas and West Carroll to all parishes in the state of Louisiana and it updates case reporting requirements for medical providers. This Rule was determined to be medically necessary pursuant to a review of surveillance data by the state health officer and representatives of Louisiana's medical schools. Reporting requirements for health care providers and laboratories are also amended to be consistent with changes occurring after Hurricane Katrina.

Title 48

PUBLIC HEALTH—GENERAL

Part V. Public Health Services

Subpart 19. Genetic Diseases Services

Chapter 70. Lead Poisoning Prevention Program

§7005. Mandatory Blood Lead Screening of Children in High Risk Geographical Areas

A. Based on surveillance data gathered by the State Childhood Lead Poisoning Prevention Program and review by the state health officer and representatives from medical schools in the state, all parishes are identified as high risk for lead poisoning.

B. Medical providers providing routine primary care services to children ages 6 months to 72 months residing or spending more than 10 hours per week in these parishes must have such children screened in accordance to practices consistent with current Center for Disease Control and Prevention guidelines, which include the following specifications:

1. administration of a risk assessment questionnaire at every well baby visit;
2. use a blood lead test to screen all children at ages 12 months and at 24 months or at any time from ages 36 months to 72 months, if they have not been previously screened;
3. blood lead levels $\geq 15\mu\text{g/dl}$ obtained from finger stick samples will be confirmed using a venous blood sample.

C. Identified high-risk areas will be assessed annually and any additions or deletions will be provided through amendment of LAC 48:V.7005.

AUTHORITY NOTE: Promulgated in accordance with R.S. 49:950 et seq., and under the authority of R.S. 40:5, 40:1299.21, 40:1299.22, 40:1299.23, and 40:1299.25.

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 31:1588 (July 2005), amended LR 34:2173 (October 2008).

§7007. Mandatory Case Reporting by Health Care Providers

A. Medical providers must report a lead case, which is indicated by a blood lead test result of $>15\mu\text{g/dl}$ (micrograms per deciliter), to the Childhood Lead Poisoning Prevention Program, Office of Public Health within 24 working hours to ensure appropriate and timely follow-up. All health care providers shall assure that all the following information is submitted to the testing laboratory with all ordered blood lead samples for analysis and/or submitted with all lead case reports to the Lead Poisoning Prevention Program:

1. child's name;
2. parent's or the guardian's name;
3. child's street and mailing address, including the city state, parish, and zip code;
4. child's date of birth;
5. child's sex;
6. child's race;
7. child's national origin;
8. child's Social Security number;
9. phone number where child's parent(s) or guardian can be reached;
10. Medicaid number if child is an enrolled recipient;
11. type of sample (venous or capillary);
12. sample collection date
13. type of test: first, annual, or repeat test;
14. blood lead level results documented in micrograms per deciliter ($\mu\text{g/dl}$).

B. Lead cases, along with the specified information shall be reported within 24 business hours by fax to the Lead Poisoning Prevention Program, Office of Public Health at 504-219-4452 and the original lead case reporting form shall be mailed within five business days to the Louisiana Lead Poisoning Prevention Program Office at 3101 W. Napoleon Ave, Metairie, LA 70001.

AUTHORITY NOTE: Promulgated in accordance with R.S. 49:950 et seq., and under the authority of R.S. 40:5, 40:1299.21, 40:1299.22, 40:1299.23, and 40:1299.25.

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 26:85, (January 2000); amended LR 27:52 (January 2001); LR 31:1588 (July 2005), LR 34:2174 (October 2008).

**§7009. Reporting Requirements of Blood Lead Levels by Laboratories and by Health Care Providers
Performing Office-Based Blood Lead Analyses for Public Health Surveillance**

A. Health care providers who conduct blood lead level screenings using a CLIA-waived blood lead analysis device to determine blood lead levels and clinical laboratories responsible for conducting analysis to determine blood lead levels for health care providers and/or for referring laboratories, shall also report all results to the Louisiana Lead Poisoning Prevention Program by electronic transmission in a format consistent with the CDC guidelines for uniform reporting of blood lead results to state and local health departments as available at <http://lcweb2.loc.gov/lasw/usa/1710299992p1106-310.pdf>.

B. The following information is required and essential for appropriate monitoring, screening and treatment of lead poisoning.

1. All results of blood lead testing for children under 72 months of age must be reported regardless of the test results

2. All laboratories responsible for directly conducting blood lead level analyses and laboratories responsible for referring the analysis to another laboratories must collect all the information specified in items under §7007.A.1-14. from the health care provider.

AUTHORITY NOTE: Promulgated in accordance with R.S. 49:950 et seq., and under the Authority of R.S. 40:5; 40:1299.21; 40:1299.22, 40:1299.23, and 40:1299.25.

HISTORICAL NOTE: Promulgated by the Department of Health and Hospitals, Office of Public Health, LR 26:85, (January 2000); amended LR 27:52 (January 2001); LR 31:1588 (July 2005), LR 34:2174 (October 2008).

Number and percent of children screened and elevated (>10) by parish (2008).

Parish	Population of Children[1] 6 and under	2008 Data						
		Total Tested (n)	Total tested (%)	10-14.9	15-19.9	≥ 20	≥10	Total elevated (%)
Acadia	5510	380	6.9%	3	1	0	4	1.1%
Allen	2083	539	25.9%	4	0	1	5	0.9%
Ascension	8129	1044	12.8%	5	1	2	8	0.8%
Assumption	1975	306	15.5%	0	0	0	0	0.0%
Avoyelles	3441	629	18.3%	6	0	1	7	1.1%
Beauregard	2701	399	14.8%	6	1	1	8	2.0%
Bienville	1216	277	22.8%	3	0	2	5	1.8%
Bossier	8689	1343	15.5%	12	4	2	18	1.3%
Caddo	19932	3265	16.4%	37	7	11	55	1.7%
Calcasieu	14634	3930	26.9%	13	8	5	26	0.7%
Caldwell	751	343	45.7%	3	4	2	9	2.6%
Cameron	583	242	41.5%	2	2	2	6	2.5%
Catahoula	822	273	33.2%	3	0	1	4	1.5%
Claiborne	1227	294	24.0%	12	5	7	19	6.5%
Concordia	1786	214	12.0%	5	1	2	8	3.7%
De Soto	2132	239	11.2%	3	0	4	7	2.9%
East Baton Rouge	32097	6561	20.4%	63	26	32	121	1.8%
East Carroll	884	67	7.6%	1	1	1	3	4.5%
East Feliciana	1713	249	14.5%	5	4	10	19	7.6%
Evangeline	3456	474	13.7%	5	3	0	8	1.7%
Franklin	1874	661	35.3%	3	0	0	3	0.5%
Grant	1656	155	9.4%	1	1	0	2	1.3%
Iberia	6620	716	10.8%	0	1	0	1	0.1%
Iberville	2636	261	9.9%	4	1	3	8	3.1%
Jackson	1167	281	24.1%	2	0	0	2	0.7%
Jefferson Davis	2909	649	22.3%	3	0	1	4	0.6%
Jefferson	29918	6627	22.2%	54	18	32	104	1.6%
La Salle	1017	178	17.5%	1	2	0	3	1.7%
Lafayette	16382	2041	12.5%	4	0	5	9	0.4%
Lafourche	7732	1108	14.3%	5	3	0	8	0.7%
Lincoln	3062	408	13.3%	0	2	0	2	0.5%
Livingston	8751	1332	15.2%	3	1	0	4	0.3%
Madison	1285	308	24.0%	2	2	0	4	1.3%

Cont.

Parish	Population of Children[1] 6 and under	2008 Data						
		Total Tested (n)	Total tested (%)	10-14.9	15-19.9	≥ 20	≥10	Total elevated (%)
				µg/dl				
Morehouse	2524	471	18.7%	10	0	1	11	2.3%
Natchitoch	3344	502	15.0%	2	0	0	2	0.4%
Orleans	16149	6214	38.5%	228	75	93	396	6.4%
Ouachita	12469	2006	16.1%	57	19	24	100	5.0%
Plaquemines	1309	321	24.5%	1	0	0	1	0.3%
Pointe Coup	1839	314	17.1%	1	0	0	1	0.3%
Rapides	10232	1530	15.0%	26	8	4	38	2.5%
Red River	888	137	15.4%	1	0	0	1	0.7%
Richland	1847	485	26.3%	9	2	0	11	2.3%
Sabine	1881	486	25.8%	7	3	0	10	2.1%
St. Bernard	658	311	47.3%	2	0	0	2	0.6%
St. Charles	4271	743	17.4%	5	2	1	8	1.1%
St. Helena	854	185	21.7%	0	0	0	0	0.0%
St. James	1802	248	13.8%	2	1	1	4	1.6%
St. John th	4165	873	21.0%	8	2	3	13	1.5%
St. Landry	7637	982	12.9%	5	1	0	6	0.6%
St. Martin	4492	285	6.3%	2	0	0	2	0.7%
St. Mary	4897	830	16.9%	2	3	1	6	0.7%
St. Tammar	16305	2583	15.8%	8	12	4	24	0.9%
Tangipahoa	9289	1846	19.9%	9	0	5	14	0.8%
Tensas	527	121	23.0%	1	0	0	1	0.8%
Terrebonne	9436	723	7.7%	3	1	0	4	0.6%
Union	1917	390	20.3%	1	1	3	5	1.3%
Vermilion	4849	782	16.1%	3	0	1	4	0.5%
Vernon	5862	271	4.6%	2	1	0	3	1.1%
Washington	2616	951	36.4%	13	5	2	20	2.1%
Webster	3135	826	26.3%	6	1	1	8	1.0%
West Bator	1845	185	10.0%	1	0	0	1	0.5%
West Carra	897	231	25.8%	3	0	1	4	1.7%
West Felici	826	52	6.3%	1	0	0	1	1.9%
Winn	1322	392	29.7%	2	2	0	4	1.0%
Missing		10599		136	41	37	214	2.0%

Appendix 1

Sources and Pathways

Children are at the most risk due to their physiological makeup – children are more prone to lead deficiencies and their skin absorbs lead more easily. Daily habits, which can include hand to mouth activity, put young children at increased risk of ingesting lead-based paint and lead-contaminated house dust and soil. Children with pica, the repeated ingestion of nonfood substances, may run higher risk of ingesting lead-contaminated substances. Lead exposure can come from a variety of different areas, including lead-contaminated soil and water, industrial sites, and house dust. The most common lead source is house dust, which is usually contaminated by lead-based paint that has peeled off or simply deteriorated from the house.

Lead in housing and lead-based paint

Lead-based paint in housing is the major concern of lead exposure in children, especially those living in older homes. Houses built before 1950 are the greatest risk of exposure because they commonly contain lead-based paint – up to 1mg/cm². Louisiana has 19.5% houses built before 1950. Furthermore, children living in urban areas such as Orleans Parish are at increased risk of lead exposure as up to 48.5% of Orleans Parish houses were built before 1950 and therefore contain lead paint. Lead is still a component in other paints, such as traffic marking paint, marine paint and auto body paint. Lead-based paint that is not deteriorated may be disturbed through routine maintenance, remodeling or renovation activities. Precautions must be taken so that any dust or paint chips generated through these activities do not create a hazard.

Soil and house dust

Dust and soil may be contaminated by deteriorated paint, deteriorating vinyl miniblinds (see below), leaded gasoline and industry emissions. Lead levels may be especially high in dust found on windowsills and in window wells (troughs) and in soil around the foundation (dripline) and on porches of homes. This contaminated soil may be tracked into the house or picked up by children on fingers and toys if they play in these areas. Soil contaminated with lead may also be found near roadways. Vegetable gardens should not be located near roadways and children should be encouraged to play in grassy areas or in clean, lead-safe sandboxes.

Vinyl mini-blind

Mini-blinds manufactured before 1996 and imported miniblinds may contain lead as a stabilizing agent. Exposure to ultra-violet light deteriorates the vinyl, causing lead-contaminated dust to accumulate on the surface of the blinds. Children may be exposed through touching the miniblinds, mouthing/ teething on them, or from routine dry dusting which may spread the dust from the blinds to other areas, such as toys near the window, the window sill or the floor. When purchasing miniblinds, the consumer should look for ones labeled “Lead safe”, “No lead added” or “No lead additives used”. Existing miniblinds, if their lead status is unknown, should be tested or removed, or cleaned often using a damp cleaning method to keep dust from spreading.

Occupation and hobbies

Workers may bring home lead-contaminated dust on their clothing, or may bring lead home via scrap materials. Whenever possible, adults who work with lead should change their clothes and shoes at work and wash their work clothes separately from the rest of the family laundry. Hobbies such as reloading or casing ammunition, or making stained glass, pottery, fishing weights, and jewelry, or refinishing furniture are common sources of lead.

Lead pipes and drinking water

Lead pipes have not been found to be a source of lead poisoning in Louisiana. However, lead pipes have been found to be a source of lead poisoning in other areas. Lead pipes or copper plumbing with lead solder may contaminate water. It is no longer legal to use lead solder or lead pipes for public or residential drinking water systems. Higher concentrations of lead may be found in water that has been allowed to sit in pipes for a prolonged period of time. In homes with older plumbing, it is advisable to allow cold water to run for 1-2 minutes before using and to use cold water for cooking instead of running the water until it is hot. Most municipal systems routinely test for the presence of lead and other contaminants. The maximum allowable level of lead in drinking water is 15 parts per billion. Contaminated drinking water has not been found to be a source of childhood lead poisoning in Louisiana. For more information about lead in water, contact the EPA's Safe Drinking Water hotline at 1-800-426-4791.

Food

Some imported canned foods contain lead from lead solder used in the can seams. Food should never be stored in opened metal cans, even if the cans are subsequently covered. Lead may leach into foods stored or served in leaded crystal containers or ceramic ware with lead-containing glaze. Food should not be stored in ceramic or lead crystal containers. Some calcium supplements have been found to contain lead, as well. For more information call the Food and Drug Administration at 1-800-FDA-4010.

Air

Airborne lead was greatly reduced by the removal of lead as an additive in gasoline. Risks still exist from point sources such as battery manufacturing plants and smelters, solid waste incinerators, and sandblasting of bridges or other lead-painted metal structures. Dry sanding and the use of heat guns to remove lead based paint should be avoided. Families may also be at risk if they burn battery casings or burn painted boards in wood stoves or fireplaces. To learn about industrial risk in a particular area contact the Office of Public Health's Department of Environmental Epidemiology and Toxicology or visit the Scorecard website at www.scorecard.org/env-releases/lead.

Traditional medicines and cosmetics

Many traditional medicines, home remedies, and supplements have been found to have a high lead content. Greta and Azarcon, used to treat diarrhea or an upset stomach ("empacho"), have a high lead content. These remedies are imported from Mexico by families and may contain as much as 90% lead by weight. Azarcon (also known as Alarcon, Coral, Maria Luisa or Liga) is

a bright orange powder and Greta is a yellow powder. Any amount of these may be poisonous to adults or children, but families may be unaware that they are hazardous. Pay-loo-ah, a red powder used by the Hmong people to treat rash or fever, and some Chinese herbal medicines also contain lead. Eye cosmetics sumra and kohl, used by some Indian, African and Middle Eastern families have also been found to be sources of lead poisoning

List of Lead Sources

Common Sources	Uncommon Sources
Lead-based paint chips, interior and exterior paint (before 1978)	Water boiled in leaded pots and pans
Old window glaze	Foreign cosmetics: Kohl, Surina
Soil, especially in dense urban areas	Foreign cold medicines: Azarcon 93.5%, (also Rueda, Coral, Alarcon, Liga, Maria Luisa); Pay-loo-ah 90% lead with arsenic; Yogran Guggulu
Dust and debris from older building renovation	Soil from smelter area
Drinking water	Ceramics
Playground soil	Old newsprint
Household dust	Leaded crystal
	Leaded gasoline fumes
	Leaded soldering fumes
	Leaded foil wine bottle caps
	Leaded residue from tainted soil or air in some fruits and vegetables
	Certain inks
	Heroin
	Bootleg whiskey
	Bone meal or dolomite supplements
	Auto battery storage casings
	Home smelting of lead shot and bullets

Appendix 2

Lead Poisoning Prevention Resources

The Louisiana Childhood Lead Poisoning Prevention Program homepage can be accessed at: <http://www.oph.dhh.state.la.us/geneticdisease/lead/index.html>. The homepage describes the program's various components and can be used to download the private provider case reporting form and the environmental inspection reporting form.

Screening for Elevated Blood Lead Levels (RE9815), a statement from the American Academy of Pediatrics originally appeared in **Pediatrics**, Volume 101, Number 6, June 1998, pp 1072-1078 and be accessed online at www.aap.org/policy/re9815.html.

Recommendations for Blood Lead Screening of Young Children Enrolled in Medicaid: Targeting a Group at High Risk appeared in the December 8, 2000 edition of the MMWR, Volume 49(RR14); 1-13. This document is available on line at www.cdc.gov/mmwr/preveiw/mmwrhtml/rr4914a1.htm. This document points out that current HCFA policy requires that all state Medicaid programs cover a one-time environmental inspection to determine the source of lead and the necessary case-management services.

The website for the Centers for Medicare and Medicaid Services provides access to past "Dear State Medicaid Director" letters. The letter dated October 22, 1999 reiterates their requirement of a blood lead test for all enrolled children at 12 and 24 months of age, as well as requiring testing of children up to 72 months of age for whom no record of a previous blood lead test exists. The website for this is <http://www.cms.hhs.gov/states/letters/smdo2299.asp>. Additional letters can be found at <http://www.cms.hhs.gov/states/letters/>.

The National Lead Information Center has a number of publications, posters, etc. from EPA, HUD, and others. Call them toll free at 1-800-424-5323 (LEAD). This number can also connect the caller with HUD's Lead Listing, a partial list of firms and individuals certified by the EPA to conduct lead-related activities (inspection, risk assessment, abatement, etc.)

Some other useful websites are given below.

CDC Childhood Lead Poisoning Prevention Program
www.cdc.gov/nceh/programs/lead/lead.htm

Environmental Protection Agency's National Lead Information Center
www.epa.gov/lead/nlic.htm

National Safety Council's Environmental Health Center's Lead Poisoning Prevention Outreach Program
www.nsc.org/ehc/lead.htm

Coalition to End Childhood Lead Poisoning
www.lead-safe.org

The US Dept. of Housing and Urban Development Office of Lead Hazard Control
www.hud.gov/lead/offices/index.cfm

The United States Census
www.census.gov

Scorecard
www.scorecard.org/env-releases/lead

U.S. Consumer Products Safety Commission
www.cpsc.gov

Appendix 3

Glossary

Chelation therapy: the use of chemical agents that bind to metals to remove toxic metals, such as lead, from the body.

Clinical/ case management: comprehensive follow-up care, usually given by a health care provider to a child with an elevated blood lead level. Clinical management includes:

Risk assessment questionnaire: these questions are recommended to help identify children who should receive blood lead screening. This questionnaire should be used at times other than the routine screening schedule if it is suspected that a child faces increased risk for lead exposure.

Confirmatory test: a laboratory test for lead that is performed on the blood of a child who has a screening blood level of 15µg/dL or greater. The confirmatory test is usually the first venous blood lead test performed within three months of the screening test.

Confirmed lead poisoning: a blood lead concentration of 15µg/dL or greater

Elevated blood lead level (EBLL): a blood lead concentration of 15ug/dL or greater determined by the lower of two consecutive tests within a three-month period.

Environmental inspection: an investigation by a certified lead sanitarian at a child's residence (or any secondary address where the child spends significant amounts of time) to identify lead hazards.

Follow-up test: a laboratory test for lead that is performed on the blood of a child with an elevated diagnostic test for lead in order to monitor the child's status.

Persistent elevated blood lead level or persistent lead poisoning: a blood lead concentration of 15-19µg/dL determined by the lower of two consecutive blood tests. These tests should be at least three months apart. The determination of a persistent elevated blood lead level may be based on more than two consecutive tests, so long as all of the consecutive blood lead test results are $\geq 15\mu\text{g/dL}$.

Pica: compulsive eating of non-food items, such as dirt or flaking paint.

Screening test: a laboratory test for lead that is performed on the blood of an asymptomatic child to determine if the child has an elevated blood lead level.

ug/dL: micrograms per deciliter, the usual unit of measure for blood lead levels.

Appendix 4

Acronyms

AAP: American Academy of Pediatrics

BLL: Blood Lead Level

CDC: Center for Disease Control and Prevention

CLIA: Clinical Laboratory Improvement Amendments

CMS: Centers for Medicare and Medicaid Services

CPSC: Consumer Product Safety Commission

DHH: Louisiana Department of Health and Hospitals

EBLL: Elevated Blood Lead Level

EPA: Environmental Protection Agency

EPDST: Medicaid Early and Periodic Screening, Diagnoses, and Treatment Program

HUD: U.S. Department of Housing and Urban Development

LACLPPP: Louisiana Childhood Lead Poisoning Prevention Program

MMWR: Morbidity and Mortality Weekly Report

OPH: Louisiana Office of Public Health

ug/dL: Micrograms per deciliter

Appendix 5

Laboratory testing

Blood Lead Testing: Capillary and Venous Samples

Blood lead testing will be done on all high-risk children at their initial child health visit and on all children at one and two years of age.

Capillary blood samples shall be used for the screening tests for blood lead levels. Careful attention to technique to avoid contamination by environmental sources of lead must be maintained to minimize the number of falsely elevated tests (see below for collection procedures).

Once the blood lead level is determined, a risk class for follow-up activities will be assigned (please refer to page 16). A confirmatory venous test will be done on all children with a blood lead level equal to or greater than 15 ug/dl. Children with a venous blood lead level of 15 ug/dl or greater shall be determined to have a confirmed lead elevation and be considered a case of lead poisoning.

Collection Procedures - Capillary Blood Samples

For routine initial screenings, all persons participating in sample collection, including child, parent, and collector shall wash their hands with soap and water. If the child has to wait for procedure, the child's hand shall be loosely covered with a paper towel.

A filter paper blood sample shall be obtained from the child's selected ring finger in this sequence:

1. Remove filter paper completely from plastic zip bag and place on paper towel on the collection surface. At this time also open lancet and place on paper towel.
2. Isolate and hold child's selected ring finger.
3. Scrub site with alcohol pad.
4. Wipe stick site dry with sterile gauze.
5. Use lancet to make the stick.
6. A gentle massage of the finger may encourage blood flow
7. Hold finger above filter paper
8. Allow one large drop to form and fall into the first dotted circle
9. Allow one large drop to form and fall into the second dotted circle
10. Dotted circles are for size and location guidance only
11. It is not mandatory that the blood fall inside the dotted circles
12. Be absolutely certain that each spot is fully saturated, front to back, and at least 1/3 inch in diameter
13. If you question whether either spot is of inadequate size, add an additional drop of blood of the required size anywhere in the test area of the filter paper

Collection Procedures - Venous Blood Samples

When the laboratory determines that the blood lead values places the child in Class IIB, III, IV or V (see table on page 16), a confirmatory blood specimen must be submitted.

Venous blood specimens should be collected for confirmatory tests. Every effort should be made to do so, but, if all efforts fail, a second capillary blood specimen collected within 12 weeks of the initial test may be collected using meticulous technique to prevent contamination.

The following collection procedures shall be followed for venous blood samples:

1. Apply a tourniquet proximal to the collection site.
2. Clean skin at the collection area with alcohol sponge and allow to air dry.
3. Use a 3 ml vacutainer tube with a lavender top with a number 22 vacutainer needle.
4. Obtain at least 2 cc of blood; the 3 ml tube should be two-thirds full.
5. Rotate the tube several times to mix the EDTA anti-coagulant in the tube with the blood.
6. Identify the specimen: Tear off the perforated strip on the right-hand side of the Lab 92 form. Remove the transfer tape, and press the strip down one side of the 3 ml tube, around the bottom, and up the other side in a "U" shape.
7. Place the specimen and completed Lab 92 form in a paper bag in the refrigerator immediately.

. This screening plan was developed according to the recommendations in the 1997 document and incorporates recommendations from CDC's most recent publication, *Managing Elevated Blood Lead Levels Among Young Children: Recommendations from the Advisory Committee on Childhood Lead Poisoning Prevention*.

It is the task of public health professionals, health care providers, public officials, communities, and parents to identify those children who will benefit from screening and to ensure that they receive the services that they need.

.In Louisiana, it is defined as having a blood lead level (BLL) of 15ug/dl or higher
Trends in Louisiana

LACLPPP's Prevention Activities

In the effort to eliminate lead poisoning, the Office of Public Health is focused on primary prevention and secondary prevention including case management and surveillance.

Primary prevention is the action of stopping cases of lead poisoning before they occur. This includes reducing the amount of harmful lead contaminants in the environment and in homes with lead-based paint.

Secondary prevention is the reduction of the effects of lead poisoning after its occurrence. This includes screening for elevated BLLs and treatment for lead poisoning cases.

Monitoring or surveillance includes setting up a system to keep track of lead exposure, screening BLL levels in children, and any new developments that might occur, such as housing reconstruction.